

Work Order ID 78447

January-10-12 9:27:16 AM

\*78447\*

Page 1

Item ID: D206-642-341

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Replacement Skidtube

Start Date: 10/01/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/01/10 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2650	F

100

0.00

\*100\*

DOCUMENT CONTROL

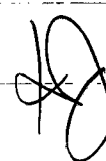
DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D206-642-341 CHG003

N/A 

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 78447

**\*78447\***

Page 2

Item ID: D206-642-341

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 16/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
<b>*110*</b>									
Skidtubes	Memo	0.00							
Skidtubes	1-Debur Fwd edge of tube								
	2-Remove ridge on inside of Fwd edge of tube as per Dwg D2650								
	3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required. A/R Aluminum Rod <u>M119712 / M119785</u>								
	4-Grind weld flush to cap on top surface only.								
	5-Cut aft end to length as per dwg D2650								
	6-Drill pilot holes using drill Jig DT8168A (A, & B) and DT8025. Open to Ø0.312"								
	7-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297".								
	8-Open Aft Cap Hole using #6 Drill Bit								
	9-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail								
	10-Remove inner indexing ridge on aft end of skidtubes as per Dwg D2650								
	11-Debur and Blow out all chips from inside the tube								

2 SAD 12-01-16

3 BE 12-01-16

3 SAD 12-01-16

QC 12/8/16

SAD 12-01-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 78447****\*78447\***

Page 3

Item ID: D206-642-341

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

115

QC5- Inspect part completeness to step on W/O

0.00

**\*115\***

QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

**\*120\***

HandFinish

Memo

0.00

Hand Finishing

125

QC3- Inspect Part Finish

0.00

**\*125\***

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 78447****\*78447\***

Page 4

January-10-12 9:27:16 AM

Item ID: D206-642-341

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
<b>*130*</b>	Skidtubes								
Skidtubes	<b>Memo</b>	0.00							
Skidtubes	1-Open holes to finished size as per Dwg D2650, D2650-5 Drilling Detail (without cutting fluid)								
	2-Countersink crossbolt spacer holes as per Dwg D2650(without cutting fluid)								
	3-Deburr. Blow out chips. Grind alodine off around crossbolt spacer.								
	4-Bond D2654-5 web in place as per QSI 015Ensure holes line upAllow 12 Hrs. cure time before cutting Start Date: <u>12-01-17</u> Time: <u>4:30</u> Finish Date: <u>12-01-18</u> Time: <u>1:00</u> A/RSikaflex-291 <u>M119563</u> Sikaflex expiry date: <u>2012-02-13</u>								
140	QC5- Inspect part completeness to step on W/O	0.00							
<b>*140*</b>									
QC	<b>Memo</b>	0.00							
Quality Control									

SAD 12-01-17

SAD 12-01-17

1 Ø BE 12-01-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 78447

**\*78447\***

Page 5

January-10-12 9:27:16 AM

Item ID: D206-642-341

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop

**\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Skidtubes	0.00							
<b>*150*</b>									
Skidtubes	Memo	0.00							
Skidtubes	1-Prep per QSI 005 and Insert cross bolt spacers D2649. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod. A/RAluminum Rod <u>M119785</u>								
	2-Grind welds flush as per Dwg D2650. Masking Tape access to inside of the Skidtube								
	3-Counterbore 5/16" x 0.750" deep as per Dwg D2650Deburr								
	4- Install nut plate as per dwg								
170	QC10- Inspect visual per QSI004- ground welds	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

BE 12-01-18

BB 12/01/18

DP 12-1-23

BB 12/01/18

S12/01/23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 78447

**\*78447\***

Page 6

January-10-12 9:27:16 AM

Item ID: D206-642-341

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180 QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

QC

Memo

0.00

Quality Control

812/01/23

190 Pressure Wash per QSI005 4.3

0.00

**\*190\***

HandFinish

Memo

0.00

Hand Finishing

Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.

IX 4 M-12/01/23

200 201

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*200\***

Powdercoat

spray paint

Memo

0.00

Powder Coating

START TIME: \_\_\_\_\_  
OVEN TEMPERATURE: \_\_\_\_\_  
FINISH TIME: \_\_\_\_\_

Prime M117319  
Delfleet Blue M118395  
clear Delfleet M118093

12-01-23 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Work Order ID 78447

\*78447\*

Page 7

January-10-12 9:27:16 AM

Item ID: D206-642-341

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Replacement Skidtube

Stop \*NS2\*

Start Date: 10/01/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC3- Inspect Part Finish

0.00

\*210\*

QC14

Memo

0.00

QC

Quality Control

① ② 12.01.24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 78447****\*78447\***

Page 8

Item ID: D206-642-341

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	HandFinishing	0.00							
<b>*220*</b>									
HandFinish	Memo	0.00							
Hand Finishing	1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. ✓ A/RSikaflex-291 <u>1119443</u> Sikaflex expiry date: <u>12/6/11</u>								
	2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive								
	3-Install MS27039-4-06 Screw								
	4-Inspect for foreign object per QSI 024								
	5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive ✓ A/RSikaflex-291 <u>1119443</u> Sikaflex expiry date: <u>12/6/11</u>								
	6-Wing Walk as per Dwg D2650-5 and QSI 005 4.4 ✓ Batch: <u>11120125</u>								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 78447

January-10-12 9:27:16 AM

**\*78447\***

Page 9

Item ID: D206-642-341

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop

**\*NS2\***

Start Date: 10/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

230

QC3- Inspect Part Finish

0.00

**\*230\***

QC

Memo

0.00

Quality Control

W 12 01 25 ①

240

QC5- Inspect part completeness to step on W/O

0.00

**\*240\***

QC

Memo

0.00

Quality Control

W 12 01 25 ①

250

Packaging

0.00

**\*250\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-341

Location:

PPP Rev:

PP 78485

6/2/25 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Work Order ID 78447

\*78447\*

Page 10

January-10-12 9:27:16 AM

Item ID: D206-642-341

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Replacement Skidtube

Stop \*NS2\*

Start Date: 10/01/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 25/01/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC21- Final Inspection - Work Order Release	0.00							
*260*									
QC	Memo	0.00							
Quality Control									

12/1/25 [Signature]

4ME  
12-01-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-10-12 9:27:21 AM

Page 1

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev: H05.10.11 Added D3429-1 per CHG004KJ/CP/JLM  
 IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DSI9440 rev.a DD verified by: EC IPP rev K 10.08.03 chg ms27039-1-08 for "C" type EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960JD416	NAS1149D0463J	Purchased	No				Each	0.0000		1			
<b>*AN960.ID416*</b>									**				
Washer													
CCR264SS3-3		Purchased	No				Each	947.0000		2			
<b>*CCR264SS3-3*</b>									**				
Cherry Rivet													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
ST331													
113973													
117849													
119017													
806													
CR3212-4-03		Purchased	No				Each	1,716.000		2			
<b>*CR3212-4-03*</b>									**				
Cherry Rivet													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
FP002													
114859													
724													
ST331													
992													
110139													
2													
119017													
990													

1114384 (V1) 4/12/01/21

2 12/01/18

2 12/01/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-10-12 9:27:21 AM

Page 2

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2620

Manufactured No

Each 25.0000

1

**\*D2620\***

Skidtube, 206 Skidtube

\*\*

SAD 12-01-16

Location

Loc Qty

Loc Code

LG

25

71616

1

71617

6

75587

2

76815

3

76817

10

76819

3

D2647

Manufactured No

Each 161.0000

1

**\*D2647\***

Cap

\*\*

BEQ-01-16

Location

Loc Qty

Loc Code

LG002

161

73826

52

75482

109

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

Each

637.0000

19

**\*D2649\***

**\*\***

*BE12-01-18*

Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

400

77574

400

*19*

LG001

237

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

76793

118

D2654-5

Manufactured No

Each

0.0000

**\*D2654-5\***

*B78832*

**\*\***

*SAD 12-01-17*

Web

D2680-041

Manufactured No

Each

140.0000

**\*D2680-041\***

**\*\***

*(1) 12/01/18*

Nut Plate

Location

Loc Qty

Loc Code

ST013

44

75479

44

ST019

96

76790

96

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039C1-08

Purchased

No

Each

766.0000

56

**\*MS27039C1-08\***

SCREW

\*\*

(x56) MU 12/01/24

Location

Loc Qty

Loc Code

FP002

1

116022

1

ST293

765

116373

3

118077

150

118159

500

119309

112

x 24

x 32

ALS4-1032-130

Purchased

No

220

Each

1,684.000

54

54

**\*AI S4-1032-130\***

Insert

\*\*

12/01/24

Location

Loc Qty

Loc Code

ST280

1589

119084

1589

ST281

95

119632

95

x 54

AN960C10L

NAS1149C0332

Purchased

No

220

Each

0.0000

54

54

**\*AN960C10I \***

washer

\*\*

M119736 (x54) MU 12/01/24

AN960JD10L

NAS1149D0332I

Purchased

No

220

Each

0.0000

2

2

**\*AN960.ID10I \***

Washer

\*\*

M119042 (x2) MU 12/01/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

220

Each

122.0000

1

1

**\*D2646\***

Aft Cap

\*\*

12/01/24

Location

Loc Qty

Loc Code

FP002

122

62678

5

68280

5

70945

1

71038

4

71070

2

73294

1

73825

104

X1

D2651-1

Manufactured No

220

Each

177.0000

14

14

**\*D2651-1\***

Plug

\*\*

12/01/24

Location

Loc Qty

Loc Code

FP001

177

57869

1

66445

10

69018

2

70839

2

71037

31

73827

131

B71037 XH

13

D2651-3

Manufactured No

220

Each

2,667.000

14

14

**\*D2651-3\***

O-Ring

\*\*

12/01/24

Location

Loc Qty

Loc Code

FP001

667

61962

12

73828

655

FP-A

2000

78126

2000

X14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-11	Manufactured	No	220	Each	18.0000	1	1
<b>*D3535-11*</b>						**	<u>ju 12/01/2012</u>
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	18	
70879	5	<u>x1</u>
71284	13	

D3535-23	Manufactured	No	220	Each	34.0000	1	1
<b>*D3535-23*</b>						**	<u>ju 12/01/2012</u>
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	34	
73314	23	<u>x1</u>
74508	11	

D3535-35	Manufactured	No	220	Each	21.0000	1	1
<b>*D3535-35*</b>						**	<u>ju 12/01/2012</u>
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	21	
67598	1	
70815	1	
73311	7	<u>x1</u>
74509	12	

D3536-11	Manufactured	No	220	Each	14.0000	1	1
<b>*D3536-11*</b>						**	<u>ju 12/01/2012</u>
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	14	
46649	1	
46715	4	
65574	1	
71283	8	<u>x1</u>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-23

Manufactured No

220 Each

33.0000 1

**\*D3536-23\***

Gasket

\*\*

1  
12/01/24

Location

Loc Qty

Loc Code

FP002

33

43406

1

73312

20

74510

12

X1

D3536-35

Manufactured No

220 Each

32.0000 1

**\*D3536-35\***

Gasket

\*\*

1  
12/01/24

Location

Loc Qty

Loc Code

FP002

32

73313

14

74511

18

X1

D3537-1

Manufactured No

220 Each

56.0000 6

**\*D3537-1\***

Wearpad

\*\*

6  
12/01/24

Location

Loc Qty

Loc Code

FP002

56

69817

5

77036

51

X6

D3537-3

Manufactured No

220 Each

12.0000 1

**\*D3537-3\***

Wearpad

\*\*

1  
12/01/24

Location

Loc Qty

Loc Code

FP002

12

76986

12

X1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 8

January-10-12 9:27:21 AM

Work Order ID: 78447

**\*78447\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 10/01/2012

Required Date: 25/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-4-06

Purchased

No

220

Each

296.0000

1

1

**\*MS27039-4-06\***

**\*\***

12/01/20

Screw

Location

Loc Qty

Loc Code

ST292

296

119075

296

89

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

SHOP COPY  
RETURNED  
ENGINEERING COPY  
UNCONTROLLED COPY  
SUBJECT TO  
WITH  
WO  
NO. 78447 M.L.J  
12/01/10

RELEASED  
08-07-23

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: N/A
  - 8) WELD PER DART QSI 004
  - 9) DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
  - 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
  - 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
  - 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
  - 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW: INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

# Dart Aerospace Ltd

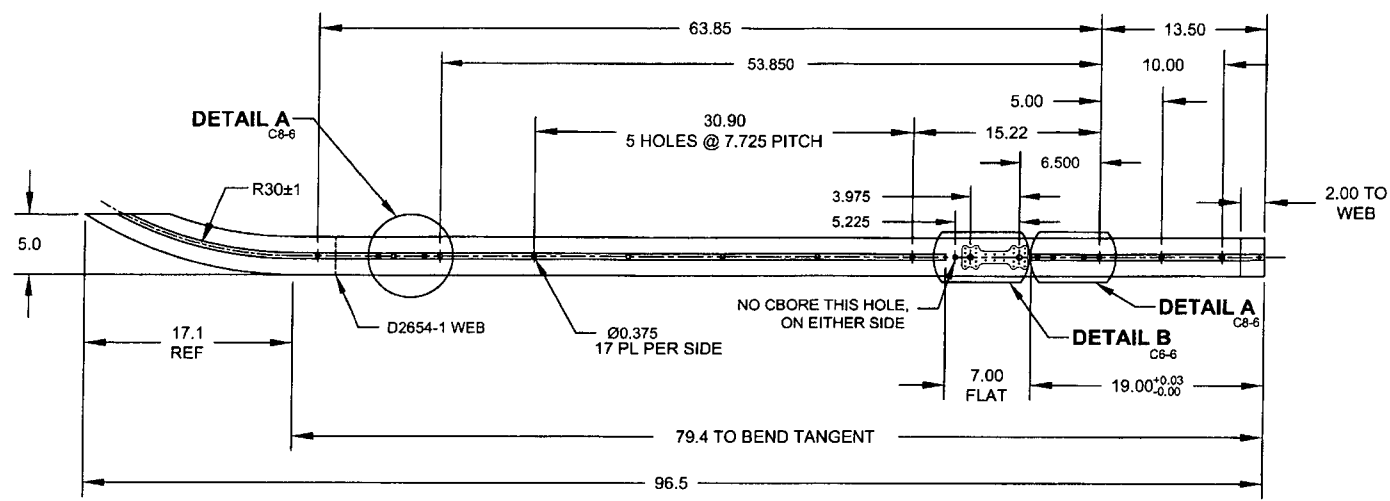
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

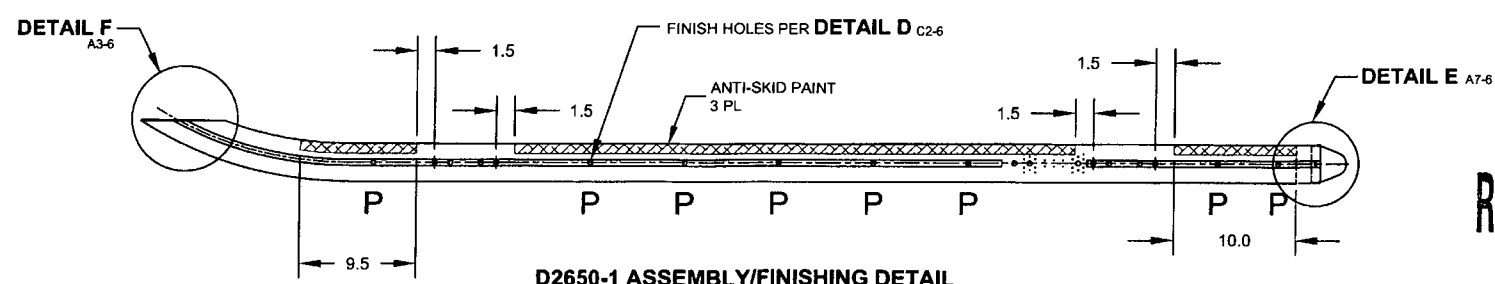
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78447



**D2650-1 BENDING/DRILLING DETAIL**



**D2650-1 ASSEMBLY/FINISHING DETAIL**

**RELEASED**  
82-07-22/114

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1967 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

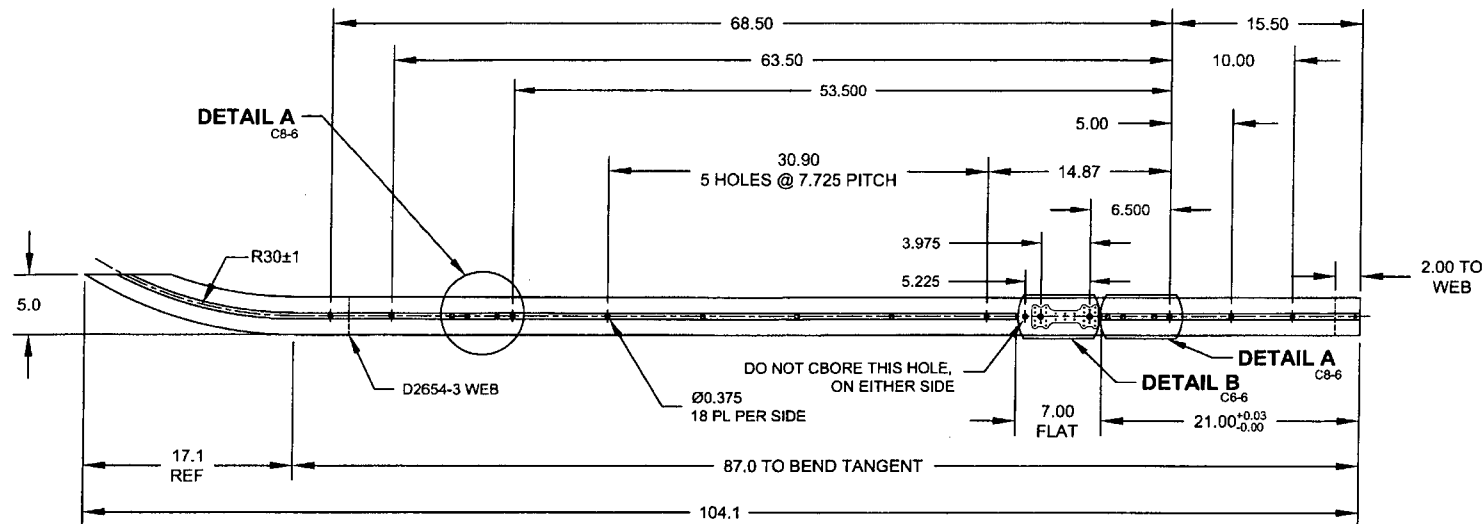
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

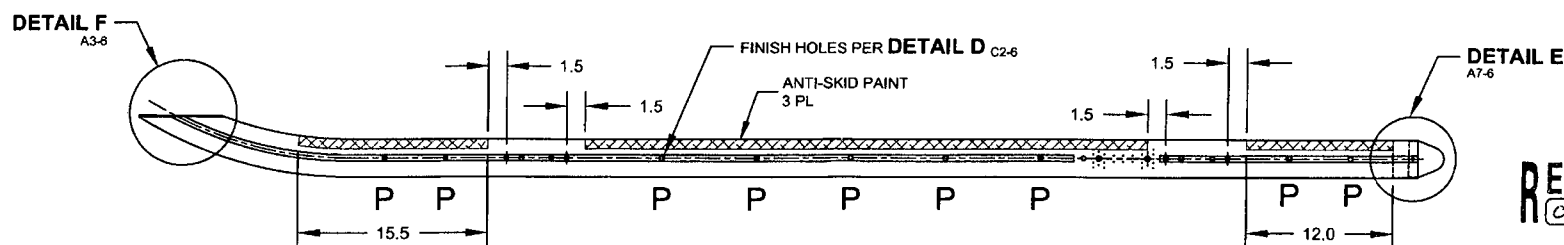
**NOTE:** Date & initial all entries



78447



**D2650-3 BENDING/DRILLING DETAIL**



**D2650-3 ASSEMBLY/FINISHING DETAIL**

RELEASED  
08-07-02-100

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

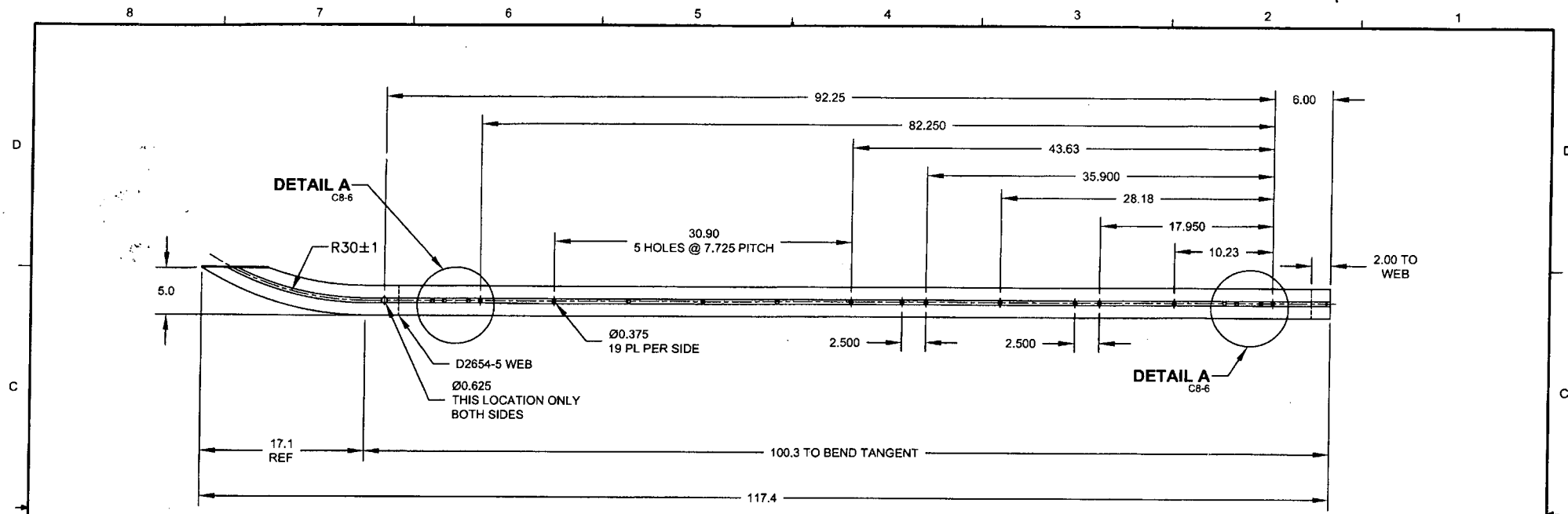
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

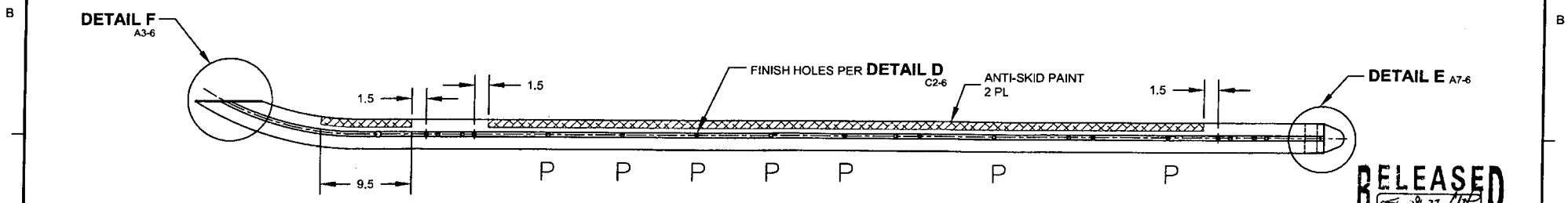
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78447



**D2650-5 BENDING/DRILLING DETAIL**



**D2650-5 ASSEMBLY/FINISHING DETAIL**

DESIGN	DS	<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	B	D2650	SHEET 4 OF 6
APPROVED	JP	TITLE	SCALE
DE APPR.	H	206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

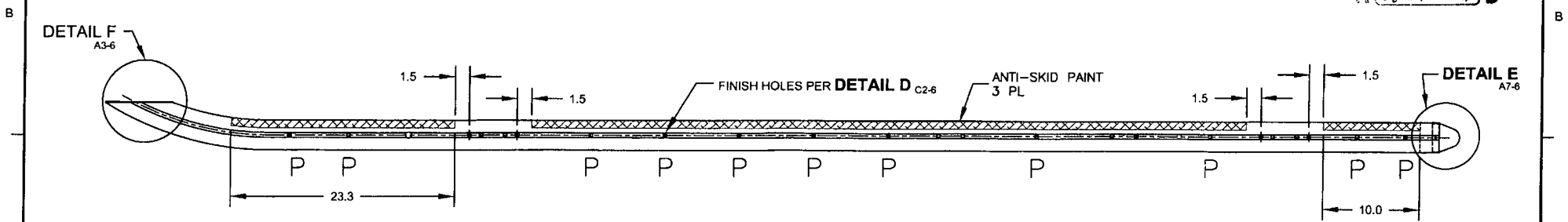
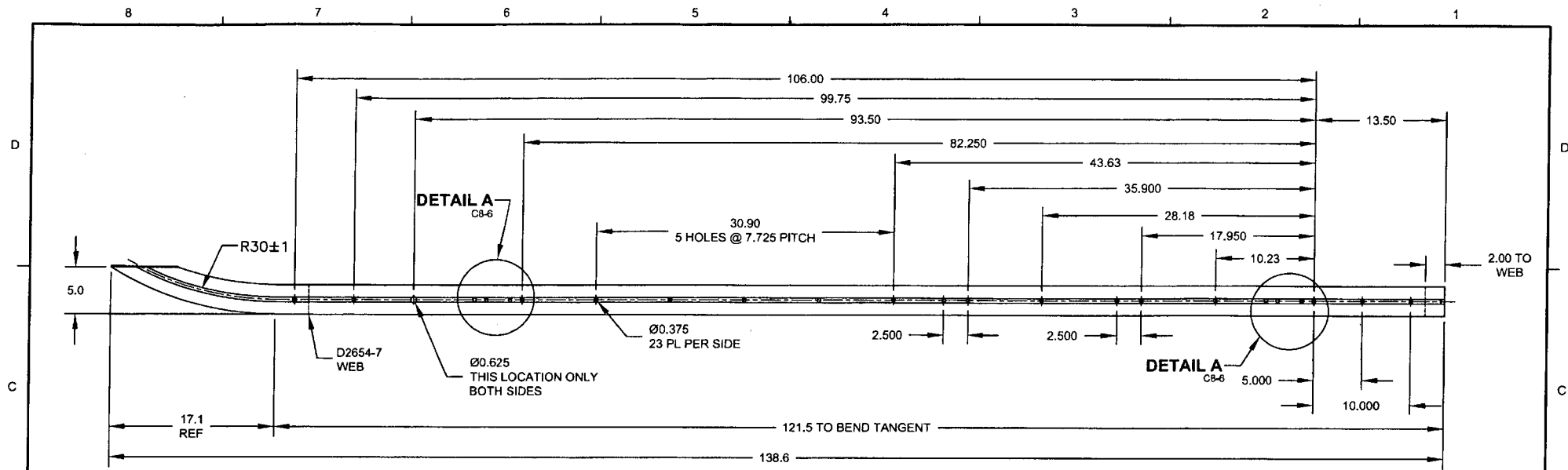
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78447



RELEASED  
08 07 22

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	<i>[Signature]</i>	D2650	SHEET 5 OF 6
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

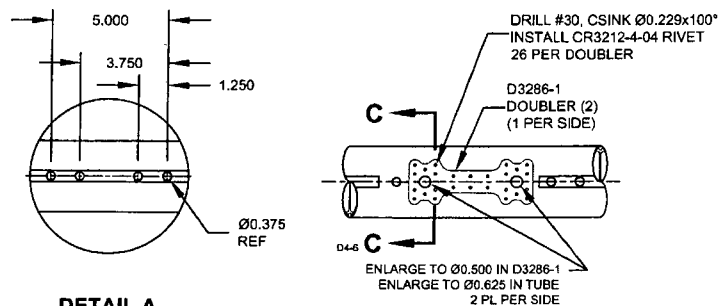
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

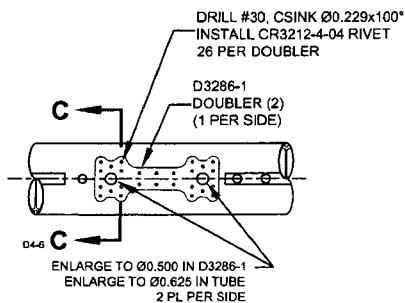
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78447



**DETAIL A**  
SCALE 2X  
C2-2  
D7-2  
C2-3  
D7-3  
C2-4  
D7-4  
C2-5  
D6-5

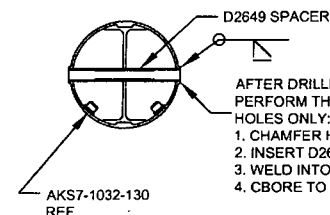
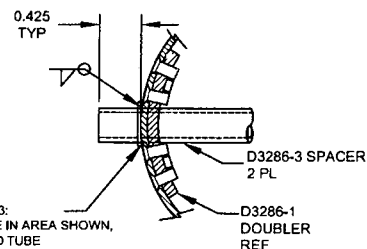


**DETAIL B**  
SCALE 2X  
C3-2  
C3-3

- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
  2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
  3. ENLARGE HOLES IN D3286-1 TO Ø0.500
  4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
  5. RIVET D3286-1 TO TUBE
  6. INSERT D3286-3 SPACER
  7. WELD IN PLACE.

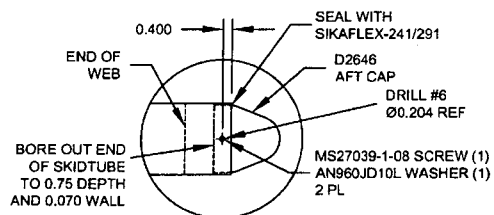


**SECTION C-C** C7-6  
SCALE NONE



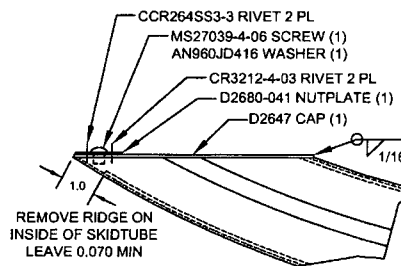
**DETAIL D**  
FOR Ø0.375 HOLES ONLY  
SCALE 3X  
B4-2  
B4-3  
B4-4  
B4-5

- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. CBORE TO Ø0.313 X 0.75 DP



**DETAIL E**  
SCALE 2X  
B2-2  
B2-3  
B1-4  
B1-5





ORIENTATION OF D2680-041



**DETAIL F**  
SCALE NONE  
B8-2  
B8-3  
B8-4  
B8-5

- DETAIL F NOTES:**
1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D2647 (TRIM AS NECESSARY)
  4. WELD D2647 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D2680-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED  
05-09-2018

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries